REMARKS/ARGUMENTS

The specification has been amended to indicate that the present application is the national stage entry based on PCT Application No. PCT/DE00/00384 filed February 10, 2000. The specification has also been amended at page 6 based on the original content of the PCT application.

Claims 18 to 46 have been cancelled without prejudice. New claims 47 to 80 have been introduced into the application. Please charge our Deposit Account No. 03-2412 for the $90 extra claim fee.

It is submitted that claim for priority under 35 U.S.C. 119 is proper pursuant to 35 U.S.C. §363 since the present application is based on a PCT application which originally designated the U.S.

It is submitted that the objection to the specification is improper. One of ordinary skill in the art recognizes that by using the designation of grams per mol that was is intended is weight average molecular weight.

The claims have been objected to on numerous bases including the use of "preferably" or "particularly". The new claims do not recite "preferably" or "particularly".

Claim 22 has been objected to because of the use of "and/or" in Markush terminology. The now pending claims do not use such alternate expressions in the recited Markush groups.

Claim 23 and 24 have been cancelled. The replacement claims do not contain the stray periods identified by the Examiner..

Claims 22, 25, 26, 28, 32, 33, 37, 40 and 44 contained parenthetical expressions. The now pending replacement claims do not contain such parenthetical expressions, except to abbreviate the name of a chemical compound.

None of the now pending claims contain the term "molar mass" as was used in claim 29, the latter claim having been cancelled.

Claim 32 has been cancelled so there is no period after "buffer tanks".

Claims reciting numbers in the thousands no longer contain a period within the number. Rather, a comma has been used.

Claims 18 to 46 were rejected under 35 U.S.C. §112 first paragraph for failing to comply with the written description requirement. This rejection is proper and should be withdrawn.

The Examiner explains that claims 18, 23, 29, 31, 33 and 38 do not identify whether the molecular weight is number average or weight average molecular weight. As indicated above, the person of ordinary skill would understand weight average molecular weight.

Claims 26 and 41 were rejected because the specification in the Examiner's view does not reasonably provide enablement for resins present in the second adhesive component. This rejection is improper and should be withdrawn.

The specification has been amended to indicate that one or more of the adhesive components comprise at least one resin. This is consistent with claims 7 to 9 of the PCT application. The specification has now been amended based on that PCT application disclosure. Therefore, while claims 26 and 41 have been cancelled, such rejection was improper and such a rejection should not be made with respect to the replacement claims.

Claims 26, 37, 38 and 41 were rejected under 35 U.S.C. §112 second paragraph based on an indefiniteness. Once again, it is submitted this rejection is improper.

Claims 26, 37, 38 and 41 have been cancelled without prejudice. The now pending claims do not incorporate the "and/or particularly" phraseology or recite "particularly wherein said resin is preferably" and therefore are not indefinite.

Claims 18, 19, 21 to 35, and 37 to 46 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,977,283 to Rossitto in view of U.S. Patent No. 5,869,593 to Helmeke et al. ("Helmeke") and U.S. Patent No. 4,895,567 to Colon et al. ("Colon"). Once again it is believed the rejection is improper and should be withdrawn.

The present invention relates to a multicomponent coating and/or adhesive material.

The state of the art is set forth on pages 2/3 of the specification. Those prior art coating and/or adhesive systems had several disadvantages. Some prior art systems are moisture-sensitive so that after their preparation they must be kept dry and even moisture from the air (humidity) must be avoided (page 2, lines 17 to 24 of the specification). This causes serious problems with respect to the preparation and the transport of these systems. Other prior art systems have the disadvantage that the reactive components may prematurely react with one another. Once that reaction has taken place, they no longer have any reactivity or sufficient reactivity for secondary reactions, such as with moisture. Therefore, those prior art systems must be used immediately after mixing (page 3, lines 21 to 28 of the present specification).

An object of the present invention is to avoid the above referred to disadvantages related to the prior art systems. A further object of the present invention is to provide a high-performance multicomponent coating and/or adhesive material on the basis of isocyanates. The invention, as defined by the pending claims, provides a solution to the problems of the prior art.

In the presently claimed invention, the defined compounds reactive with one another are present in separate components so that a premature reaction before application of the inventive multicomponent coating and/or adhesive material is avoided. The two components (a) and (b) can be stored independently and are mixed together immediately before and/or during application. This ensures high stability of the starting materials and a facilitated storage of the components. Since both components are in granular form (granulate or granular material) they are easily handled and processed, and mixing of the two components in an extruder is facilitated. Furthermore, the granular form ensures a higher stability and longer storage period.

The molecular mass of the isocyanate-reactive polymers is selected such that only isocyanate-reactive polymers having molecular masses of more than 8,000 g/mol are used. Surprisingly, this particular feature ensures a high initial strength of the inventive multicomponent coating and/or adhesive material

when being applied after blending of the two components. Thus, the practical handling and operation is facilitated significantly with no sacrifice of pourabilty when being processed, especially when being melted.

Further, the present invention also contains a polymer which is not isocyanate-reactive and which is selected from the group consisting of an ethylene/vinyl-acetate copolymer, a polyolefin and mixtures thereof. As the Examiner noted, such non-isocyanate-reactive polymer may be either present in the first component (a) and/or in the second component (b) or in both components (a) and (b). The technical effect provided by the presence of the non-isocyanate-reactive polymer is the same, independent of whether it is present in the first and/or in the second component. The presence of the specific non-isocyanate-reactive polymer in the first and/or in the second component has the decisive advantage that the inventive multicomponent coating and/or adhesive material – after being prepared by mixing the two components (a) and (b) immediately before its application – has an extended pot-life, i.e. an extended processing time, since the presence of the non-isocyanate-reactive polymers controls the reaction between the isocyanate-reactive polymers and the isocyanate-terminated cross-linking agents. Thus, the application of the inventive multicomponent coating and/or adhesive material and its handling/operation is facilitated significantly since the processing time is extended by the presence of the specifically selected non-isocyanate-reactive polymers which are either present in the first and/or in the second component of the present invention. It is the synergistic combination of these measurements/features which leads to the high-performance multicomponent coating and/or adhesive material of the present invention.

It is submitted that none of the prior art anticipates or renders obvious the claimed subject-matter of the present invention. The prior art citations disclose **one**-component systems, i.e. the two compounds being reactive with one another (isocyanates on the one hand and isocyanate-reactive polymers) are present within **one** component and have to processed within a relatively short time since otherwise all reactivities have reacted.

Rossitto refers to a thermoplastic/thermoset adhesive which comprises an at least partially reacted blend of one or more isocyanate-reactive compounds and an isocyanate compound having specific properties.

In sharp contrast to the present invention, Rossitto teaches **one**-component systems. This means that the two compounds being reactive with each other are present within one single component and thus may already react with each other before their application. Thus, *Rossitto* teaches away from the present invention, which explicitly teaches to use a **multi**component system wherein the two compounds being reactive with each other (namely isocyanate-reactive polymers on the one hand and isocyanates on the other hand) are present in two different granulates so that a premature reaction between these compounds before their application is prevented. Consequently, the present invention is based on a completely different principle from that of Rossitto.

Also, as correctly noted by the Examiner, *Rossitto* fails to teach the presence of non-isocyanate-reactive polymers selected from the group consisting of ethylene/vinyl acetate copolymers, polyolefins and mixtures thereof. This teaching cannot be derived from *Helmeke* since that reference also refers to a **one**-component system.

Helmeke discloses a hot-melt moisture-cure polyurethane composition comprising the reaction product of at least one polyether glycol, at least one crystalline polyester polyol and at least one polyfunctional isocyanate. In contrast to the present invention, in Helmeke the two reactive species have already reacted with each other so that little or no free reactivities remain.

Thus, like Rossito, Helmeke teaches away from the present invention since this reference refers to a **one**-component system wherein all reactive species are present within one single component.

Further, a combination of *Rossitto* and Helmeke does not lead to or suggest the present invention since both references refer to **one**-component systems whereas according to the present invention a

multicomponent system is provided wherein the reactive species are present in different, separate components.

Colon refers to a very specific, wetness-indicating hot-melt adhesive composition substantially free of vinyl pyrrolidone homopolymer and vinyl pyrrolidone/vinyl acetate copolymer and consisting essentially of 20 to 70 % by weight of at least are polymer selected from the group consisting of ethylene/vinyl acetate copolymer and ethylene/acrylic acid copolymer and 25 to 60 % by weight of an acidic material as well as particles of a dyestuff insoluble in the composition, but soluble in water, and capable of indicating wetness.

This specific system of Colon has nothing in common with the present invention. Also, Colon provides a **one**-component system. Furthermore, Colon refers to a specific wetness-indicating system comprising a wetness-indicating dyestuff. However, no isocyanate-reactive system is disclosed or suggested.

Obviously, Colon is cited by the Examiner only because of its mention of ethylene/vinyl acetate copolymers. This is, however, the only common particular with the present invention. It is submitted that Colon is not pertinent with respect to the present invention and the skilled practitioner would never combine it with Helmeke or Rossitto. Even if he did so, he would not arrive at the present invention because all three references are based on a fundamentally different principle from that of the present invention.

It is submitted that when considered as a whole, the cited prior art teaches away from the present invention. The references above and in combination, focus on **one**-component systems wherein the reactive species are present within one single component and may undergo a premature reaction.

Thus, the present invention is not only novel over the cited prior art but also unobvious. The advantages related to the present invention have been outlined above.

It is submitted that the rejection is based on an improper combination of references. The references alone do not suggest the combination and there is no motivation to combine or select parts of

the references to combine as has the Examiner. See In re *Grabiak*, 226 U.S.P.Q. 870, 872 (Fed. Cir. 1985).

Further, it is submitted that the Examiner has relied on non-analogous art and that one of ordinary skill in the art would not look to these references to address the problem which the inventor faced. There is nothing to direct one of ordinary skill in the art to for instance Colon, other than applicant's present disclosure. This is not a proper basis for combining or for determining the scope of analogous art.

The International Preliminary Examination Report correctly states that the present invention is novel and inventive. That report under item 2 indicates that the subject-matter of claim 1 amended during international examination proceedings distinguishes over the closest prior art document D1 (WO-A-93/25599, *Abend*) in the choice of the polyol used (i.e. in the use of a isocyanate-reactive polymer with a molecular weight of more than 8,000 g/mol.) and in the use of an additional non-isocyanate-reactive polymer in the form of an ethylene/vinyl-acetate copolymer and/or a polyolefin. The person skilled in the art is not motivated to use these compounds in combination with a specific non-isocyanate-reactive polymer.

The European Patent Office granted a European patent (European Patent EP 1 159 370 B1). No opposition was lodged against that patent.

In view of the foregoing, reconsideration and allowance of the application with claims 47 to 80 are earnestly solicited.

It is believed that no fees or charges are required at this time in connection with the present

application; however, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
COHEN, PONTANI, LIEBERMAN & PAVANE

By _____

Vincent M. Fazzari, Reg. No. 26,879
551 Fifth Avenue, Suite 1210
New York, New York 10176
(212) 687-2770

Dated: August 20, 2004